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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,028	09/05/2003	Paul L. Camwell	A891743US	6038

37047 7590 02/02/2006

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EXAMINER
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CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/655,028	<b>Applicant(s)</b> CAMWELL ET AL.	
	<b>Examiner</b> Daniel J. Cavallari	<b>Art Unit</b> 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/5/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The examiner acknowledges a submission of the amendment filed on 11/26/2004. The replacement figures are accepted.

#### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a) because:

1. The figures fail to show the operation of the power switches (244 & 243 of Figures 2 & 3) as described in the specification.
2. The "sensor circuit detection means" (263) integration with the rest of the circuitry is not adequately shown in the figures.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

1. The specification discloses "Accordingly...a very simple basic electric diode attached to the plug, enabling a sensor circuit attached to the socket to activate various solid state switches to protect the sockets attached electronic circuitry and permit electrical supply of power only when the plug and socket combination are fully engaged..." (See Specification Page 7). Figures 2 & 3 disclose a current sensor (242 & 241) attached to a power switch (244 & 243) however the drawings fail to show how the flow of power is controlled by the switches (244& 243). A power input is disclosed (235 & 236) (See Specification Page 14 & 15) in which "The I/O lines comprise a power line (235) monitored by current sensor (242) that controls power switch (244), digital lines (233,234) controlled by digital

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switches (246)..." In reference to Figure 2, the power switch (244) is disclosed as having a power line (235), an attached current sensor (242) and an attached interrupt line (260). The drawing fails to disclose an output to the switch (244) making it unclear how exactly the switch (244) is capable of control the flow of power.

2. Figure 4 discloses the "plug sensor circuit detection means" (263), but fails to teach how this circuit is integrated with the rest of the system of figure 1.

Although some common components exist between the circuits, ie sensor (256), the sensor is not shown connected to any switch as expected.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Drawings***

The drawings are objected to for the following reasons:

- Figures 1-7 fail to adequately label the components with proper identifiers.

Because the drawings use symbols not representative of the components (ie switches 244, 243), these components should be given descriptive labels as well as a number in order to easily identify the components. Currently, all components are drawn as rectangles making it unclear what the components are as no descriptive labels are provided.

- Those components that are electrically connected together should be drawn to show such connection i.e. in figure 1, the connection between contacts (286 & 284) and sensor lines (280 & 282) are not shown.

### ***Claim Objections***

Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 4. See MPEP § 608.01(n). Accordingly, claim 5 not been further treated on the merits.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In regard to Claims 1 & 5

- The limitation of "... so as to then permit electrical current to flow to and/or from said at least one other contact thereon" is not adequately disclosed in the specification or shown in the drawings. The examiner notes that the specification teaches the use of switches (243 & 244) (See Specification page 14) but fails to disclose the connection of the "sensor circuit detection means" (263) with the switches in which to control the switches as well as the input and output of the power switches (235). It is unclear how current flows through the device. An input and output of the switch as well as a source and load connection are not disclosed.
- It is therefore unclear how the plug and socket isolation means (202 & 216) operate to permit electrical current flow.

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In regard to Claim 2

- It is unclear how the socket isolation means is performed.

In regard to Claims 3, 6-9, 12, & 14

- It is unclear how the circuit isolation means is performed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1, 2, & 3 the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 1 & 3 recite the limitation "the socket diode" however "a socket diode" is not previously disclosed. There is insufficient antecedent basis for this limitation in the claim. Although the claim states "...such as a diode", this is not a sufficient for proper antecedent basis.

Claim 2 recites the limitation "the diode" however "a diode" is not previously disclosed. There is insufficient antecedent basis for this limitation in the claim.

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Although the claim states "...such as a diode", this is not a sufficient for proper antecedent basis.

Because of the 112 problems with claims 1-16, no art can be applied.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Anderson et al. (US 5,949,160) teaches a switching system capable of sensing the connection of the device to a power supply and operating switches in response to coupling the external power plug to the connector (See Abstract)
- Dopf et al. (US 2005/0070141 A1) teaches a rotatable connector
- Plishner (US 2004/0132337) teaches a connector for connecting conductors

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

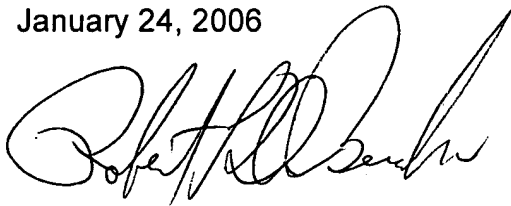


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

January 24, 2006

A handwritten signature in black ink, appearing to read "Robert L. Deberadins", written in a cursive style.

**ROBERT L. DEBERADINS**  
**PRIMARY EXAMINER**